202306UECM1404OE3b

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Review of preview

Started on	Friday, 18 August 2023, 06:06 PM
Completed on	Friday, 18 August 2023, 06:06 PM
Time taken	5 secs
Grade	**0** out of a maximum of 10 (**0**%)

1
Marks: 1

A loan of 110,000 is repaid with unequal annual payments at the end of each year for 50 years. Each of the first 49 payments is equal to two times the amount of interest then due. The final payment repays the remaining loan balance at that time. Interest is charged at an annual effective rate of 6%. Calculate the amount of the final loan payment. _____

Answer: ✗

Make comment or override grade

Incorrect
Correct answer: 5622.939061
Marks for this submission: 0/1.

2
Marks: 1

A borrower and a lender agree to the following arrangement: The borrower will pay annual interest to the lender for 14 years at 5%. The borrower will pay 140% of the original loan amount to the lender at the end of 14 years by making 6 annual deposits in a SF earning 3%. After making the 6 deposits, the SF grows with interest only. The total annual payment made by the borrower in the first 6 years is 15,000. What is the amount of the loan? _____

Answer: ✗

Make comment or override grade

Incorrect
Correct answer: 67917.25816
Marks for this submission: 0/1.

3
Marks: 1

A 20-year loan of 22,000 may be repaid under the following two methods:

- amortization method with equal annual payments at an annual effective rate of 5.5%.
- sinking fund method in which the lender receives an annual effective rate of 7.3% and the sinking fund earns an annual effective rate j.

Both methods require a payment of X to be made at the end of each year for 21 year. Calculate j. _____

Answer: ✗

Make comment or override grade

Incorrect
Correct answer: 0.1495
Marks for this submission: 0/1.

4
Marks: 1

Justin and Maggie each take out a 18-year loan L. Justin repays his loan using the amortization method, at an annual effective interest rate of i. He makes an annual payment of 1000 at the end of each year. Maggie repays her loan using the sinking fund method. She pays interest annually, also at an effective interest rate of i. In addition, Maggie makes level annual deposits at the end of each year for 18 years into a sinking fund. The annual effective rate on the sinking fund is 4.13%, and she pays off the loan after 18 years. Maggie's total payment each year is equal to 10% of the original loan amount. Calculate L. _____

Answer: ✗

Make comment or override grade

Incorrect
Correct answer: 10706.68645
Marks for this submission: 0/1.

5
Marks: 1

John borrows X and repays the principal by making 13 annual payments at the end of each year into a sinking fund which earns an annual effective rate of 7%. The interest earned on the sinking fund in the 4th year is 83.58. Calculate X. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 7479.86397
Marks for this submission: 0/1.

6 Marks: 1

A borrower is repaying a loan at 8% effective with payments at the end of each year for 14 years, such that the first year,s payment is 880, the second year 836.0, and so forth, until the 14th year it is 308.0. Find the principal and interest in the 7th payment. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 395.48
Marks for this submission: 0/1.

7 Marks: 1

A loan of 49,000 is being repaid by a 30-year increasing annuity-immediate. The initial payment is K, and each subsequent payment is K larger than the preceding payment. Determine the principal outstanding immediately after the 11th payment, using an annual effective interest rate of 6%. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 67542.465425
Marks for this submission: 0/1.

8 Marks: 1

A loan is repayable by a decreasing annuity payable annually in arrears for 25 years. The repayment at the end of the first year is 8000 and subsequent repayments reduce by 200 each year. The repayments were calculated using an annual effective rate of interest of 6%. Construct the schedule of armortization for years eight and nine, then determine the outstanding balance at the end of year 9. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 49964.69
Marks for this submission: 0/1.

9 Marks: 1

A 13-year loan of 6500 is to be repaid with payments at the end of each year. It can be repaid under the following two options:

1. Equal annual payments at an annual effective rate of 7.27%.
2. Installments of 500.0 each year plus interest on the unpaid balance at an annual effective rate of i.

The sum of the payments under option (1) equals the sum of the payments under option (2). Determine i. _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 0.082766
Marks for this submission: 0/1.

10 Marks: 1

Annie borrows 18,000 from Bank X. Annie repays the loan by making 36 equal payments of principal at the end of each months. She also pays interest on the unpaid balance each month at a nominal rate of 12%, compounded monthly. Immediately after the 17th payment is made, Bank X sells the rights to future payments to Bank Y. Bank Y wishes to yield a nominal rate of 14%, compounded semiannually, on its investment. What price does Bank X receive? _____

Answer:

Make comment or override grade

Incorrect
Correct answer: 9382.206716
Marks for this submission: 0/1.